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ABSTRACT

In discussing word recognition, Kenneth Goodman argues that preoccupation with words, leters, and scunds cuts off children from the meaning-seeking function of reading; that oral and written language are parallel modes of obtaining meaning from language; and that reading is a selective rather than a precise process of word perception. A review of his arguments in these areas suggests that Goodman has not addressed the importance of word perception, its link to the ability to read in thought units, the role of phonics as a tool for comprehension, and the major differences between oral and written language. What are urgently needed are longitudinal studies of how youngsters varying in background and conceptual development learn in a setting that reflects Goodman's views. (RL)

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Some Thoughts On Goodman's Views on Word Perception

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The purpose of this article is to briefly examine and evaluate statements made by the psycholinguist, Dr. Kenneth Goodman, that have bearing on word perception. Goodman relegates word perception to an insignificant role in the development of efficient reading ability by refuting the notion that reading is a precise process of word perceptions (Goodman, 1976). He feels that in the name of word perception instruction we have "fed children strings of letter or strings of words" without asking whether this procedure actually contributes to reconstructing meaning from print (Goodman, 1972). Although words have dictionary meanings, the word or phonics approach teaches children to go from one code to another without recourse to meaning (Goodman, 1970). For Goodman the "great debate" (meaning emphasis versus code emphasis) is nothing more than a phonics-word controversy unconcerned with comprehension (Goodman, 1969). "There should never be an argument," says Goodman, "between whether to start with code or with meaning: because the code only operates in relationship to meaning (Goodman, 1971). Since written language is an alternate form of oral language, one can go from written language to meaning directly without concerning oneself with phoneme-grapheme correspondence or phonics (Goodman, 1976). For Goodman, words derive their meaning as a consequence of being a part of larger units of language; "they lose much of their semantic and syntactic quality as language units" (Goodman, 1969).

Alluding to word and phonic approaches to reading instruction, Goodman states that language cannot be fragmented "because the reader does not use all the information available to him" (Goodman, 1969). He avers that overdependence on visual information (reading strings of words) is inefficient and unproductive in terms of information processing and retrieval (Goodman, 1972). He finds support for his contention in the analysis of oral reading miscues (mismatches between the expected responses in oral reading and unexpected responses) which very often suggest that a reader does not respond to each word as a fixed, sequential entity. To do so would cause him to neglect crucial syntactic and semantic elements (Goodman, 1969).

There appear to be three assumptions or themes running through the preceding summary of Goodman's views that require examination: 1) Preoccupation with words, letters and sounds cuts children off from the meaning seeking function of reading; 2) oral and written language are parallel modes of obtaining meaning from language; and reading is a selective rather than a precise process of word perceptions.

1) Phonics and word recognition versus meaning - Goodman believes that in the process of applying word attack skills, treating words as entities in a fixed sequence, the child is actually prevented from utilizing a rather large reservoir of information about language that he has built up over the years that would help him to extract the ultimate meaning of what he reads. Meaning is both input and output in reading and Goodman feels that a child's "power over language" is only minimally harnessed via phonics and word approaches to reading. "Instead of teaching processing of language to get to meaning," states Goodman, "phonics instruction teaches the processing of language to get to sounds or to get to words." And continues Goodman, "Schools may be teaching kids not to comprehend because teaching them letter-to-sound correspondence is not related to comprehension which is the objective of reading (Goodman, 1972).

It is not irrelevant to point out that Goodman's view of the great "debate" (code versus meaning emphasis) is that it is a phonics-word controversy unconcerned with comprehension (Goodman, 1967, 1970). A careful reading of Learning to Read: The Great Debate (Chall, 1967) suggests that Goodman misconstrues Chall's views. Chall states that the ultimate goal of reading instruction in "meaning emphasis" programs is mature reading defined as the "ability to 'get meaning from the printed page' efficiently and critically in such a way that any information so obtained can be put to use and a love and appreciation of literature can be developed." (Chall, 1967). Chall's review of the research makes it clear that "a code emphasis method - i.e., one that views beginning reading as essentially different from mature reading and emphasizes learning the printed code for the spoken language, produces better results, at least up to the point where sufficient evidence seems to be available, the end of

the third grade." Her extensive research presents proof that systematic phonics produces readers who read for meaning as well as for enjoyment.

It should be emphasized that both Goodman and Chall are opposed to excessive use of phonics: e.g. "preoccupation with phonics in any form in reading instruction is at best a peripheral concern" (Goodman, 1975); e.g. "The writer believes that excessive concern for phonics induces short circuits in reading" (Goodman, 1972). Chall (1967): "Nor can I emphasize too strongly that I recommend a code emphasis only as a beginning reading method - a method to start the child on - and that I do not recommend ignoring reading - for - meaning practice. Once the pupil has learned to recognize in print the words he knows (because they are part of his speaking and listening vocabulary), any additional work on decoding is a sheer waste of time." Also, "The importance of letters and letter sound knowledge, however, changes through the years. They appear to be more essential for success in the early stages of reading than high intelligence and good oral language. In the middle grades, however, when the reading-matter content begins to tax the pupil's intellectual and language abilities and when most of them have a good knowledge of the alphabet and of letter sound relationships (i.e. they have control over the "mechanics" of reading), intelligence and language ability begin to play a larger role in reading achievement. But the child who fails to master the first stage will find it difficult to reach the second." (Chall, 1967). Chall recognizes as does Goodman that the alphabet is"a code, an abstraction." But the former believes that when the child first begins to utilize the code, he is"practicing a higher form of intellectual behavior," which may lay the foundation for manipulation of what Bruner refers to as symbolic representation.

The thrust of Goodman's contention that overreliance on the visual display distracts young learners from the understanding that reading is supposed to sound like language and yield meaning is obviously not borne out by Chall's review of research from laboratory, classroom and clinic.

Apparently Goodman's assertion that "any attempt to reduce the complexity of language in reading by sorting out letters or word parts or words increases the complexity of the learning, since it substitutes abstract language elements for meaningful language" (Goodman, 1974) is also unsupported by much of the research of the Cooperative Research Program in Primary Reading in which it was not found that "early concentrated emphasis on phonics and rapid introduction of vocabulary" had any negative effect on reading fluency and comprehension in later grades. (Dykstra, 1968). One of the 15 conclusions that appear in the report of the Cooperative First-Grade Studies is that, "Word study skills must be emphasized and taught systematically regardless of what approach is utilized" (Bond and Dykstra, 1967). Other evidence of the advantages ascribed to beginning reading programs in which there is an initial emphasis on phonics is detailed in the Encyclopedia of Educational Research (Mac Ginitee, 1969).

In Goodman's view, "word recognition is a much harder task than reading language" (Goodman, 1970). He believes that "because language is learned from whole to part, not from part to whole" one doesn't have to be smart to acquire the ability to read through a whole-language approach. Meaning, he avers, does not inhere within individual words, but in the whole context - the sentence, the paragraph, sometimes the entire selection (Goodman, 1975). It may very well be that in speech, listening and fluent reading a sentence is not a series of words but "a unitary meaning bearing pattern of grammatical and syntactical functions" in which the individual words play a rather subsidiary role (Le févre, 1964). However, within the context of initial reading instruction, the expectation that children should learn by reading sentences when they can't even recognize many of the words of which they're composed appears to be a difficult task - one which incidentally resulted in the demise of the "sentence method" at the end of the last century (Spache, 1969; Groff, 1978).

Although many reading practitioners recognize that comprehension ultimately relies on one's ability to respond to the larger cue systems or structures that exist within

the flow of language - not just to cue systems within words - they find the word and the cue systems within them to be the most viable or salient linguistic unit of word identification at the-beginning-to-read stage of instruction (Gates, 1947; Gray, 1960; Durkin, 1976; Heilman, 1977; Harris, 1975; Gibson, 1976).

Smith and Dechant (1977) place the relationship between reading by structural components and reading by words in proper perspective: "It may well be the sentence is the basic unit of meaning, but the word, the letter, or the sound may be the basic unit of identification and recognition."

Spache (1977) remarks that although some linguists hold that word recognition instruction is "destructive of sentence sense, reading is first a word recognition task and only secondly a process of interpretation of word combinations." Although the meaning of a sentence transcends the importance of its word components, eye movement studies indicate that the sentence must be read by the average reader not much more than a word at a time and processed mentally before it is understood (Spache, 1977). Carroll (1964) provides additional insights in his analyses of the reading process as to why the natural unit for the reconstruction of the spoken message is the word. Groff's (1978) analyses of the six cue systems in the flow of language described by Goodman (1976) clearly indicates that they all "require the child to analyze, identify or otherwise deal with individual words."

Within the context of our preceding remarks it would appear that Goodman insufficiently recognizes that the locus of difficulty for many beginning and remedial readers is the word. Without the requisite word identification skills to translate those squiggly lines of print into their auditory counterparts, the individual who already has these words in his speaking and listening vocabulary may be denied access to the sound stream from which he can derive the deep structure. Case studies of pupils with reading problems as reported by Gray, Gates, Monroe, Orton and Fernald (Chall, 1967)

indicated that they had severe decoding problems despite the fact that they possessed adequate listening comprehension and intelligence. Poor reading comprehension, the lack of interest in reading and schoolwork were the results and not the causes of reading difficulty. Most of these youngsters eventually were able to read with greater understanding, speed and enjoyment once they had learned to "crack the code." Basically theirs was a problem of not knowing how to identify words in print which were familiar in oral context. It is important to note that neither Chall nor any of the reading experts to whom she refers believe that phonics will guarantee that all children will acquire the ability to read easily. Some of the case studies suggest that overreliance on phonics produces unthinking word-by-word readers. But in those cases in which this occurred it was an easy matter according to Gates and Gray to remedy the situation via more process or content oriented reading. Too much "wrong phonics" proved to be the major stumbling blocks in these cases.

Goodman believes that phonics is unnecessary to the reading process because an efficient reader can bypass phonology and decode meaning from graphic input (Goodman, 1972). With respect to beginning reading he states, "Only a small fraction of this power over language is put to work through phonics or word recognition approaches to reading" (Goodman, 1975).Goodman criticizes synthetic phonics programs and those programs which either correlate spelling patterns with sound patterns or teach sight vocabulary as being out of touch with whole language because they prevent children from sampling syntactic and semantic information (Goodman, 1970). Goodman hypothesizes that in the early stages of reading acquisition, the child utilizes letters, letter patterns and word shapes to which he gives values (e.g. sounds and word names). The child is not reading but merely going from one code to another without recourse to meaning (recoding). Decoding print to meaning takes place when the beginning reader realizes that the sequences of phonemes and morphemes that he has read are parts of larger

language units which he must equate with oral phrases, sentences and sentence sequences (Goodman, 1968). Another way that Goodman expresses this view is to say that decoding to meaning can only take place when the reader utilizes the "cue systems in the flow of language" (word patterns, inflection, function, words, intonation, contextual meaning, redundancy) together with those "cue systems within the reader" (linguistic, experiential, conceptual background). Children who rely on "cue systems within words" (letter-sound relationships, shape or word configuration, known little words in new words, affixes, recurrent spelling patterns, whole known words) may learn to see the trees but be oblivious of the forest (Goodman, 1970).

Although Goodman states that the graphophonic, syntactic and semantic cue systems operate simultaneously and interdependently (Goodman, 1973), he points out that the graphophonic cue system plays a relatively minor role: "Nor is the matching of such information [graphic] to phonological information a necessarily significant part of the reading process" and "Where should reading instruction begin? Not with letters or sounds but with whole real relevant natural language we think." (Goodman, 1976). A similar point of view is reflected in miscue research studies and reports conducted from 1965 - 1974 and reported in (Allen and Watson, 1976): "teachers need not teach readers 'their sounds.' Readers bring a complex and highly developed sound system to the reading task and are quite proficient at relating it to the graphic cues within the total context of language. On the other hand, growth in reading is retarded when individuals are asked to distort their language in drills which isolate the phonemic and graphic systems from functioning language contexts." The suggestion that an early emphasis on phonics automatically may deflect a child from reading with understanding because he is initially operating at the word level, the reader will be reminded, is not borne out by Chall's research or by that of either the first-grade or the second-grade report of the U.S. government supported Cooperative studies in reading.

Virtually all authors of phonics texts state that overreliance on any one method of word attack is unacceptable - that phonics is frequently dependent on context for its validity - that only enough phonics should be taught that will help the child to become a good reader - and that phonics is a means of helping a child to communicate with the author by helping him to recognize the symbols that stand for the ideas expressed on the printed page (Durkin, 1972; Heilman, 1972; Cordts, 1965). Frank Smith, a psycholinguist of note, unlike Goodman, believes that phonics provides an effective and important strategy for helping the beginning reader to discover the distinctive features of printed matter by which alternative letters, words and meanings can be differentiated. Smith asserts that phonics helps the child to establish categories with both an acoustic and a visual feature list. For Smith, phonics at the beginning-to-read stage is a necessary albeit a temporary expedient "that will be of very little use to him once he develops reading fluency" (Smith,1971). This is very similar to Chall's belief previously alluded to (Chall, 1967).

Goodman believes that children bring "a complex and highly developed sound system to the reading task" and are capable of inducing grapheme-phoneme relationships on their own when their environment is saturated with written language and they are given abundant opportunities to become involved in reading. Goodman declares "I must reject 'direct teaching' as contradictory to much of what we know of language learning..... I must reject simplistic phonics programs and other assorted back-to-basics propositions as reactionary, negative and rooted in ignorance and superstition" (Goodman, 1979). Exposing children to and involving them with vast amounts of meaningful printed material may be a fruitful procedure for those children whose cognitive style predisposes them to learn this way. But there is a body of research that indicates the difficulties inherent in learning via inductive or self discovery means. (Mazurkiewicz, 1976). Many slower learning children often require a more structured approach. In commenting on the limitations of self discovery, Roger Brown reminds us of the slowness of incidental

learning as compared with directed learning when he says, "The educator who would claim that phonetic generalizations are better learned by incidental induction than by direct formulation with examples, assumes the burden of proof. His claim does not conform to popular belief nor has it been demonstrated in the laboratory" (Brown,1959).

One of the reasons that accounts for Goodman's bias against phonics is traceable to the mistaken belief that a child who attempts to "crack the code" through phonics is in the same category as the "bar mitzvah" boy who does not understand what he has read, even though his word-by-word reading in Hebrew is error free (Goodman, 1976). The basic difference between the two situations is that while the typical "bar mitzvah" boy recodes without recourse to meaning since he does not know the meanings of most words in the first place (In fact he is unable to speak or understand the language), the average child whose intelligence and language development is normal knows the meaning of most words. This child, unlike the "bar mitzvah" boy is in a strategic position to reconstruct the author's meaning through the utilization of the syntactic, semantic and grapho-phonic cue systems. By his failure to demonstrate the potency and the limitations of graphophonic information at various stages in the acquisition of reading ability at various levels of an individual's development and in connection with different purposes, Goodman's deemphasis on phonics is questionable. Children can be taught to utilize phonics as a comprehension centered tool in conjunction with "cue systems within words" and "cue systems in the flow of language" (Newman, 1979; Pearson, 1978; Durkin, 1976; Pflaum, 1975). Goodman has never seriously concerned himself with this possibility. Commenting on the need to unburden the beginning or disabled reader from the chore of remembering many new words, one writer suggests that "the more weapons a child has to attack an 'enemy,' the shorter the battle, the fewer the casualties, and the surer the victory" (Schell, 1970).

2) Oral and written language are parallel modes of obtaining meaning from language. The thrust of Goodman's hypotheses on reading acknowledges the fundamental similarities

between the written and oral language processes even though he is aware that there are differences: "The differences between oral and written language are based more on their use than on any intrinsic differences between the processes" (Goodman, 1975) and "Reading is the counterpart of listening. It uses graphic input while listening uses aural input; but essentially the processes are much the same and the goal is the same: comprehension" (Goodman, 1969). Goodman believes that whether one starts with speech or with print, one must learn "how to get from the written signal to the underlying structure" (Goodman, 1971). He does not think it necessary to pass through surface speech processes to get to meaning. Missing from the premise that written language is an alternate form of oral language is any mention of the unique demands placed upon the beginning reader while using the written code: learning and remembering the visual configurations of letters, syllables and words as well as their auditory counterparts, understanding that the order of letters in a word usually corresponds to the order of sounds in speech, learning how to coordinate the temporal sequence of sounds with the directional sequence of letters and words, and learning that how long it takes to say a word is related to the length of the visual configuration.

"If one can learn speech without a fully developed phonemic organization," asks Goodman, "why can't one learn reading without it?" and answers, "Youngsters have built their perceptual categories from whole language and not by learning each phoneme in isolation or in syllables" (Goodman, 1973b). Because children speak in whole words, they ought to be able to deal with whole words and not portions of words is a conclusion that ignores the contribution of phonological analysis to the acquisition of oral language. The fact that children respond to "whole language" now does not rule out the importance of phonemic and syllabic processing and segmentation at an earlier stage of development (Gleitman and Rozin, 1973). Children who have no problem per-

ceiving phonemes and words aurally experience difficulty perceiving them in reading (MacGinitie, 1978; Shankweiler, Liberman, Fowler and Fischer, 1977; Gibson and Levin, 1975). It may be that they are unaware of the segmentation of language into units of phonemic size, a skill vital in reading but not in speaking or listening. (Those who would argue "if it is so vital, why are many excellent readers also poor spellers?" fail to recognize that these proficient readers frequently make near misses omitting, inserting or substituting one or two letters but for the most part staying close to the word's orthographic pattern. Too, it must be remembered that "learning for recognition in reading does not require the complete mastery for correct recall in spelling" (Harris and Sipay, 1975). Motivational factors and visual memory difficulties also account for differences). Misreading vowels which are correctly heard in speech is traceable to complex orthographic differences, lack of consistent one-to-one correspondences between phoneme, grapheme and embedded placement within the syllable and difficulties encountered in phonetic reading (Shankweiler and Liberman, 1972).

Vygotsky (1962) also sees differences between oral and written language. Speech operates at an almost unconscious level whereas written language requires deliberate analytical action on the part of the child. There are many other important differences between language acquisition and beginning reading (Carroll, 1966; Liberman, 1968; Wardhaugh, 1971; Smith, 1979).

In refutation of Goodman's assumption that a graphic system represents an oral system which in turn represents meaning G→ O→ M, Gleitman and Rozin deny that deep structure or meaning is extractable from these inputs. "This is the thrust of the transformational position," they state, "and this is what Dr. Goodman misrepresents in his discussion. (G→ O→ M does not imply G→ M; no more than Sound→ Grammar → Meaning implies Sound→ Meaning, and forget about the grammar" (Gleitman and Rozin, 1973).

3) Reading is a selective process. The proficient reader according to Goodman utilizes a variety of cues encoded by the writer to reconstruct his meaning. Using graphic symbols as input and his knowledge and understanding of language, conceptual development and breadth of experience of resources, he engages in an intellectual information processing game simultaneously sampling phonological (sound), semantic(meaning) and syntactic (grammatical) cues. His predictions, anticipations or guesses are constantly being evaluated and tested - confirmed or rejected - reformed or reprocessed in the light of their semantic and syntactic acceptability. A good reader requires a minimum of visual information. "A proficient reader is one so efficient in sampling and predicting that he uses the least available information necessary." In Goodman's view, efficient reading does not require a sequential processing of print - that is word-by-word reading is unnecessary. A good reader has skill in "selecting the fewest, most productive cues necessary to produce guesses which are right the first time," (Goodman, 1976). There is some evidence based on oral reading miscue analyses research that better readers do exhibit a number of the characteristics described by Goodman, especially when the reading matter is rich in context. This research also "supports the basic assumption that when reading takes place, even at the earliest moment, all three systems of language must be intact in order for the reader to understand that reading is language and that the purpose of reading is to get at the author's message" (Y. Goodman, 1976).

It must be emphasized that Goodman's model is based on how a mature reader behaves. Moreover his description is one that takes place during silent reading even though the foundation for the theory as well as the research used to support it is based solely on oral reading miscue analyses. Some critics have expressed reservations about Goodman's perspective (Graff, 1979; Newman, 1978; Mosenthal, 1976-1977). Others suggest that findings based on how mature readers operate may not be relevant to the

behavior of the beginning reader (Hittleman, 1978; Samuels, 1976; Williams, 1976). Although proficient readers may be able to sample and predict from print because they are able to deal with word and phrase level language elements as single units of information (Smith, 1970), this type of behavior is not usually demonstrated by beginning and remedial readers for whom there is experimental evidence to indicate that the unit of processing in reading is the spelling pattern (Gibson, 1976) or some combination of letters, groups of letters and words (Smith, 1978; Smith and Denchant, 1977; Gates, 1947).

In his stretched out model of the reading process, Goodman (1968) hypothesizes that at "proficiency stage 1" beginning readers may use letters, letter patterns and word shapes to recode phonemes, phonemic patterns and word names and at "proficiency stage 2" the reader "must perceive letters and words always as parts of larger language units" and "be able to equate these large graphic units with oral phrases, sentences and sentence sequences." He does not explain, however, how the beginning reader moves from the first two stages to stage three in which he "can use the peripheral areas of his visual field" and advance to the point when reading becomes "a rapid series of guesses; tentative information processing." How does the beginning reader eventually learn to recognize and "edit out" redundant language? Smith, (1978) states that there is no conclusive evidence that children "need to be trained to seek or use redundancy in any way." Goodman (1976) believes that when children are exposed to a large quantity of meaningful printed language of all types they will develop the ability to be more selective - learning what to pay attention to - what to ignore - learning various prediction, confirmation strategies. How does the novice reader learn to predict? Goodman is silent on this issue. But Smith notes that the beginning reader is unable to predict what the surfact structure will be since he is dependent upon analyzing all elements of the surface representation. Smith further informs us that in

trying to identify words one at a time without any prediction, the beginner will not be able to even apply syntactic rules (Smith, 1971). Goodman does not offer any satisfactory explanation of how the novice reader learns to go from deep structure to the surface level predicting from meaning to the visual representation. Are all children capable of becoming selective readers? To what extent does a child's reasoning ability - his cognitive style - affect his potential for acquiring "skill in selecting the fewest most productive cues necessary to produce guesses which are right the first time." In Goodman's view, the key to helping deficient readers is to "build their confidence in their ability to predict meaning and language." Those children who fail to learn to read according to Goodman do so not "because of their weaknesses but because we've failed to build on their strengths as competent language users." "Can anyone learn to read? Yes we say. Anyone who can learn oral language can learn to read and write." (Goodman, 1976). A review of the research on reasons leading to failure to learn to read suggests that there are many causes other than those relating to oral language development (Rupley and Blair, 1979; Harris, 1979; Spache, 1977; Heilman, 1977; Spache, 1976a and 1976b; Karlin,1975). An extensive review of the research on oral language and reading (Groff, 1977) indicates that "we should place little confidence in any writer on the relationship of oral language and reading who would have us believe the issue [Is a child's oral language positively related to his reading achievement?]here is settled, one way or the other." Again as mentioned earlier, the question of whether all children are able to learn to read through a program of induction and self discovery without a structured program of skills instruction (Goodman does not believe that there is a hierarchy of skills to be taught since they all function at the same time [Goodman, 1976]; moreover he rejects "direct teaching" chiefly because it undervalues the language competency of children and because it is "contradictory to much of what we know of language learning" [Goodman, 1979]).

There is some evidence that relatively high IQ test scorers tend to show a higher degree of accuracy and a relatively low proportion of substitutions [oral reading] - that they rely more upon semantic and syntactic than on surface features of print (Bluestein, 1977). The ability to predict one's way through reading, merely sampling the visual information to confirm one's expectations, making maximal use of redundancy (not to mention other strategies described by Goodman (1967) in his model of the "psycholinguistic guessing game") require a level of perceptual, cognitive and thinking ability that all readers may be incapable of attaining. Whether in fact all mature readers reading different types of material actually behave in a manner described by Goodman is open to question. (Gibson and Levin; Gough, 1972). How do novice readers eventually learn to sample syntactic or semantic information? How do they learn to disregard graphic information ~~or~~ which is unnecessary? How do they learn to predict? How do they learn to deduce meaning from surface structure? Put another way, what are the developmental stages through which readers progress to reach or come close to reaching that level of proficiency required to be able to play the psycholinguistic guessing game? These are questions which Goodman has not clearly answered. Goodman's belief that word-by-word readers' comprehension is impaired because of their inability to take advantage of crucial syntactic and semantic cues existing within the flow of language is questionable; there are many first and second graders with an average span of recognition less than one word (per eye stop) who nevertheless read with sufficient understanding on standardized oral and reading tests (not mere word recognition tests but those assessing <u>comprehension</u>) to score on grade level (and this is accomplished by readers unable to pick up words ahead of their interpretation).

Goodman's description of the reader's progressive development from "stage one proficiency" to subsequent stages (Goodman, 1968) is not very informative about the relevancy or potency of single word perception as a necessary link to reading in thought units. Le Févre who agrees with Goodman's view that when chief emphasis is

on larger patterns than words children will develop their own generalizations of spelling-sound relationships," emphasizes that phonics instruction may be necessary for those readers who require it. "In teaching children to read, we should analytically slice larger language segments into smaller ones only to the extent that the learning process requires it." (Le Fevre, 1964). Some, recognizing the failure of Goodman and others to accord sufficient importance to word analyses skills during the beginning to read stage of their development, have filled in, the "missing links," so to speak (Pearson, 1978; Pflaum, 1976). Gates' research which has to date not been experimentally discredited led him to state that the ability of the average child to read in thought units follows as a consequence of his mastery of single words. It is only when the child learns to read in thought units, according to Gates, that he will be "on the threshold of acquiring what is called the 'eye voice span' or the eye 'recognition span'; that is, ability to get an impression of words in advance of those which occupy his thought at the moment." The ability to read larger language units on the basis of "reduced cues" and context usually take place before the completion of grade 3. (Gates, 1947), Although Gates seems to suggest that this is a developmental stage which most average children pass after they have mastered single word perception, he implies that the nature of the learning process is affected to a degree by the type of instruction and materials used.

Goodman and the other psycholinguists as a result of their analysis of oral reading miscues have found that less efficient readers rely less on syntactic and semantic cues than upon graphophonic information, and that their miscues tend to be less meaningful. Moreover they seem not to be able to self correct their miscues as well as more efficient readers. (Clay (1972) and Weber (1970) found that high progress readers (they possessed superior linguistic and intellectual ability) made fewer meaningless miscues and more meaningful self corrections than their slower peers. In her

study, Bluestein (1977) found evidence that relatively high IQ test scorers tend to show a greater degree of accuracy and a relatively low proportion of substitutions - that they relied more upon semantic and syntactic than on surface features of print. In Bluestein's view, the crucial factor differentiating the manner in which readers process information is individual cognitive style and personality. Furthermore, Bluestein's study of children's oral reading miscues caused her to conclude that "the contention that attention to surface features may detract from other 'linguistic' information is equivocal and needs further investigation." Bluestein states that "it might have been equally logical to speculate that inaccurate use of graphic and sound cues would cause distortions of meanings which in turn might influence correction of miscues."

This paper has attempted to examine some of Goodman's views on word recognition. At present, it would appear that Goodman has left unanswered certain questions relating to the importance of word perception and its link to the ability to read in thought units, the role of phonics when it is used as a comprehension centered tool and the major differences between oral and written language, and their implications for reading instruction.

What is urgently needed are longitudinal studies of youngsters of varying background and conceptual development who are exposed to the type of program advocated by Goodman and others (e.g. Y. Goodman, 1976) but under normal classroom teaching conditions.

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